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ORD

FY81 RESEARCH PROGRAM

IN SUPPONE OF

OFFICE OF DATA PROCESSING

25X1A Approved For Release 2002/01/24 : CIA-RDP83T00573R000300220011-6

# Approved For Release 2002/01/24 July RDP83T00573R000300220011-6

#### ORD RESEARCH PROGRAM DEFINITION

- REQUIREMENTS GENERATED BY ALL OFFICES
- RANKING OF REQUIREMENTS (CRITICALITY, \$ PAY OFF)
- R&D VALIDITY
- # DRD SKILL SASE
- # PERCEPTUAL PROGRAM FILIERS
- FUNDING AVAILABILITY

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### ODP FY81 RESEARCH REQUIREMENTS

- Security Filtering Technology (DDA ranked #1)
  - CONTROLLED NON-AGENCY COMMUNITY ACCESS TO AGENCY DATA BASES
- B. SHIP EVERIFFICH PECHNISUES (DDA RANKED FI)
  - " UVERSEAS MAGNETIC MEDIA STORAGE (CRAFT/CLASS A MINANCIAL SYSTEM)
- TEXT SEARCH (DDA RANKED #4)
  - HSTS TECHNOLOGY (HARDWARE AND MICROCODE) TO ODP DATA BASES

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#### PROPOSED ORD FY81 PROGRAM

### INFORMATION SYSTEMS

- Advanced Text Search and Retrieval
- Data Protection Techniques for Data Stored on Magnitic Hebia
- COMPUTER NETWORK SECURITY

### RELATED RESEARCH

• Information Processing for Analysts

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ADVANCED TEXT SEARCH AND RETRIEVAL - STUDY THE APPLICATION OF ADVANCED TEXT

SEARCHING AND RETRIEVAL TECHNIQUES, INITIALLY DEVELOPED

UNDER THE HIGH SPEED TEXT SEARCH PROGRAM, FOR APPLICATION

TO ODP RETRIEVAL REQUIREMENTS. THE FY81 STUDY WILL IN
CLUDE AN EXAMINATION OF THE APPLICATION OF THE TECHNIQUES

BY DIRECT INCORPORATION IN CPU'S (VIA MICROCODE) OR TO

PERIPHERALS (VIA MODIFIED DISK CONTROLLERS), A DEFINITION

OF FEASIBILITY, AND IDENTIFICATION OF A DESIGN APPROACH.

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Funds:

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DATA PROTECTION TECHNIQUES FOR DATA STORED ON MAGNETIC MEDIA - EXPLORE TECHNICAL MEANS FOR THE PROTECTION OF COMPUTER DATA STORED ON MAGNETIC MEDIA USED IN FIELD APPLICATIONS. THE OBJECTIVE IS TO AVOID THE COMPROMISE OF DATA WITHOUT THE NEED TO DESTROY DISKS AND TAPES. THE FY81 STUDY WILL EXAMINE ALGORITHMS FOR STORING AND RETRIEVING DATA IN PROTECTED FORM. THE ANALYSIS WILL ADDRESS INFLEMENTATION, COST, AND OPERATIONAL JONS, DERATIONS

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FUNDs:

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Computer Network Security - Explore methodology to provide a provably secure mechanism to allow access to Agency systems by other Intelligence Community members that observes compartmentation requirements. The FY81 Study will establish the formal specification of requirements and will determine the solvability of the formulated problem.

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Information Processing for Analysts - Continue the exploration of computer systems architectures which will provide an information processing environment directed towards the manipulation of analyst's cognitive models rather than the manipulation of analyst's data. This phase of the activity involves the selection of an application area and the development of a demonstration. Testbed for the architectural concepts.

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Funds:

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### OTHER ODP FY81 RESEARCH REQUIREMENTS

- BANDWIDTH COMPRESSION TECHNIQUES (DDA RANKED #5)
  - More effective utility of bandwidth constrained communications overseas
- FIBER OPTICS FOR WIDEBAND INTRA-AGENCY COMMUNICATIONS (DDA RANKED #5)
  - Transmission of voluminous text and imagery to analyst stations (i.e., ADSTAR and IDEX)

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